enjoy fresh air and reduce energy costs

Intelivent - an energy intelligent ventilation system for New Zealand homes and offices

sustainable, efficient
healthy airflow control

intelivent

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intelivent brings you a breath of fresh air...

Intelivent is simply the most advanced air ventilation and thermal energy recovery system on the market. It captures, recycles and redistributes an incredible 90% of heat that would otherwise be lost through venting stale, polluted air.

Intelivent then intelligently distributes warm, fresh air evenly throughout the home or office. At the same time, Intelivent removes stale air containing moisture, odors, air bourne pollutants and carbon dioxide several times daily – truly providing a breath of fresh air…

With Intelivent, incoming air is passively dehumidified increasing comfort and reducing mould or mildew. In addition to these valuable health benefits... **Intelivent will also help you save money on energy costs.**

By recovering and recycling thermal energy, an Intelivent system considerably reduces the amount of power required to provide a comfortable temperature within your home or office.

the Intelivent Advantage

✓ moderately effective ✓ highly effective

Feature	Positive Displacement	Air Conditioning with MU Air	Heat Pump	Dehumidifier	Heat Transfer system	Intelivent
Reduces condensation	✓	✓	✓	✓	✓	✓
Reduces winter power bill		✓	✓		✓	✓
Reduces summer power bill	✓	✓	✓			✓
Acts as a heat transfer system	✓	✓			✓	✓
Reduces dusting, air-born allergens	✓	✓				✓
Extracts stale air (high in C02)	✓	✓				✓
Better home security		✓				✓
< 200W power consumption	✓				✓	✓
Delivers up to 15x its energy consumption in pre-heated/cooled fresh air						✓
May retrofit to attic fans						✓
Highly effective heat exchanger						✓
Installs through ceiling access way	✓				✓	✓

reduce energy costs and improve efficiency

The intelivent system has a very low power consumption, equivalent to that of a large light bulb. More importantly, the system reduces the demand on heating and cooling appliances... lowering your energy costs.

what so unique about intelivent

No other system can ventilate a building to a healthy standard with such energy efficient considerations.

This capability is made possible by the innovative design of two key components of the Intelivent system:

heat exchanger HX500*:

Intelivent's New Zealand designed heat exchanger is possibly the most efficient of its class. The Counter Flow action offers up to 90% energy recovery from the stale, polluted air processed by the system before being expelled from the building.

intelligent controller:

By monitoring the temperatures in various rooms the intelligent controller is capable of identifying where to source thermal energy from.

The integrated fans are controlled logically. Their speeds adjust intuitively and independently to meet the presets of the controller (as set by the building resident) and readings from room temperature monitors.

call today to find out more about how an innovative intelivent system can bring a breath of fresh air into your building...

0800 intelivent (468 354)

“Every New Zealander expects and deserves a clean, healthy environment - not just for ourselves, but to pass on to future generations...”

(National environmental standards - MFE)

conservation benefits

To have a comfortably warm home, we are contributing to the increasing demands put on energy resources. The situation is made worse if you are losing heat through poor insulation, leaking window frames and doors, or through pressurisation of the interior forcing heat out of the home.

Replacing lost heat puts excessive demands on electricity, gas, or solid fuel energy supplies - exhausting valuable natural resources and also emitting detrimental greenhouse gases.

Heat recovered by the Intelivent Heat Exchanger can be as much as 80 to 97%** of the available heat, while also delivering solar energy created in the ceiling cavity, otherwise not utilised.

Topping up the temperature, instead of continually replacing it, results in dramatic power savings. What’s more, in certain circumstances, an efficient Intelivent System can give back >$20 for every $1 you spend on system running costs.

** Independent tests conducted a conclusive 88% within conservative accuracy limitations - Independent Technology Limited

health benefits

Intelivent creates a variable airflow; introducing fresh dry air, reducing mould and mildew causing moisture and removing damaging stale, damp and contaminated air.

It has been recognised that dust mites thrive in the moist environments in New Zealand houses and that energy efficient ventilation and increasing indoor temperatures might reduce dust mite populations and provide a healthier environment for asthmatics.

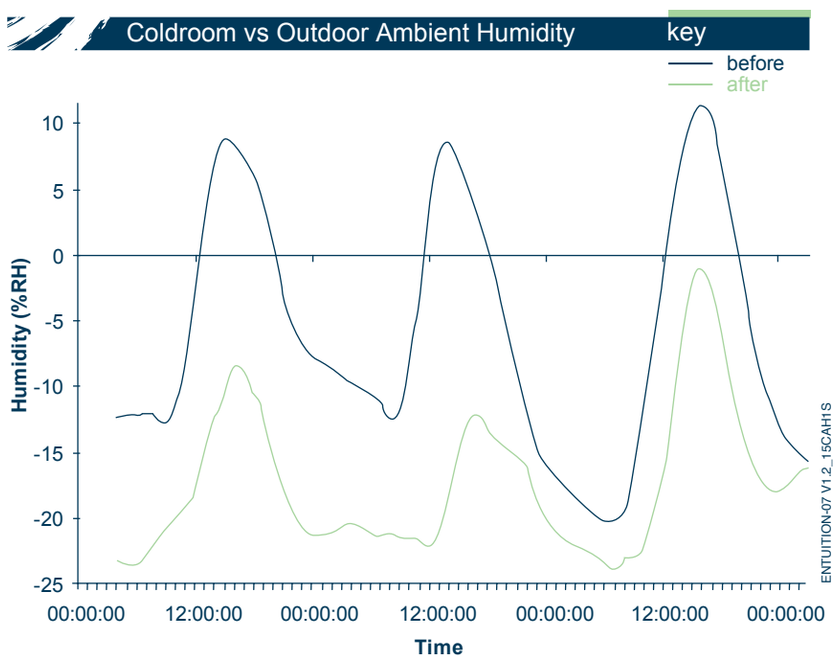
Intelivent’s highly efficient EU4 delivery air filter can greatly reduce and in some cases, totally eliminate air born pollutants such as Fungal Spores, Pollen, off-gassing from building materials and aerosol sprays and Dust Mite dander.

The World Health Organisation recommends the temperature inside a home should not drop below 18ºC to be healthy. An Intelivent system helps achieve this and far exceeds the New Zealand Standard NZS 4303-1990 (table 2.3) minimum of eight changes of air in a dwelling every twenty-four hours.

the startling facts

- New Zealanders spend approximately 90% of their time indoors and yet the temperature and air quality is often less than adequate - causing harmful health effects.*
- Poor indoor air quality - toxic vapors, mould and dampness - exacerbate respiratory illness.*
- Humidity levels need only be around 70% to allow mould to grow. Known health effects and symptoms associated with mold exposures include allergic reactions, asthma and respiratory complaints.
- One in four New Zealand children suffer from Asthma - one of the highest rates in the world.

* Beacon Pathway Ltd research consortium 2007



energy saving benefits

On average, an Intelivent system operation costs can be as low as 2 cents an hour. An Intelivent system considerably reduces the amount of power required to heat the home, using very little power itself to achieve this. Power consumption required to operate the system depends on individual circumstances however in most cases, you will actually SAVE electricity and other heating resources.

Based on an operating cost of 2c/hr:

- If you currently run two dehumidifiers (~14c/hr) you may save >12c/hr.
- If you have a Positive Pressure Attic Fan, the power consumption of the fan may only cost 1c/hr however it could also be pushing warm air outside your home, that has cost you >$1.00/hr to heat!

As dry air needs less power to heat and also feels warmer, a more comfortable environment is created with far less power. The intelligent controller constantly monitors the temperatures around the home and adjusts it to achieve the best results possible. If there is heat or cold available it will use it to achieve the desired temperature.

By utilising this existing thermal energy it reduces the amount of power required to reheat clean, dry fresh air distributed throughout the home.

quality assurance, service and technical support

The Intelivent customer support line provides on call support. Technical advice on installation and configurations can also be provided by specialised support staff, trained to assist you to get full benefit from the system.

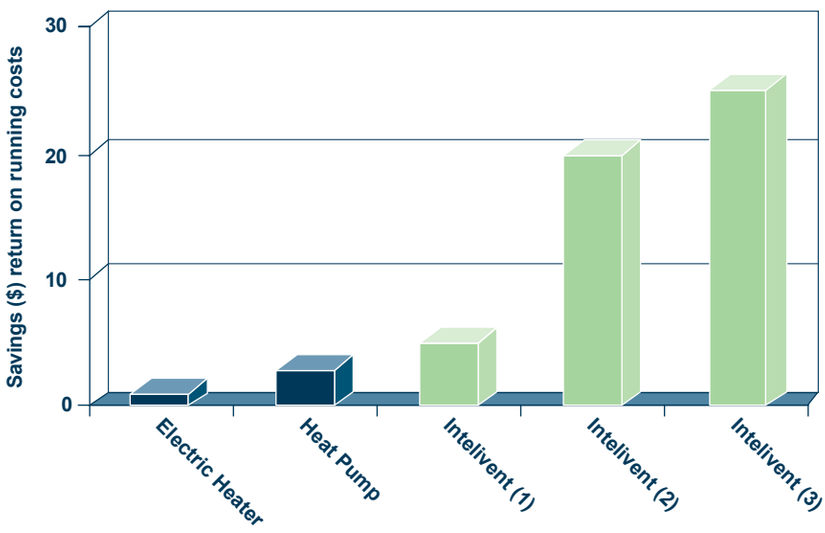
Entuition sources technology partners carefully and prefers suppliers that hold or work to industry specific, recognised standards in quality and safety.

Routine servicing of the Intelivent system is recommended. Instructions can be found the User Manual provided with the system. Competitively priced servicing can also be arranged by an Entuition customer service person, who will ensure a trained professional is dispatched to clean filters and the heat exchanger and review the systems efficiency and operation.

call today for a free on site assessment service...

0800 intelivent (468 354)

Energy Efficiency Comparison (savings per $ spent)



key

Intelivent (1)
savings possible when using an Intelivent system in place of a dehumidifier and heat transfer system

Intelivent (2)
savings possible due to Intelivent system retaining thermal energy stored within the building

Intelivent (3)
total possible savings return on running costs

how does the Intelivent system work...

Unlike other ventilation systems, Intelivent uses an innovative heat exchanger to capture heat energy from stale air as it is being expelled from the house.

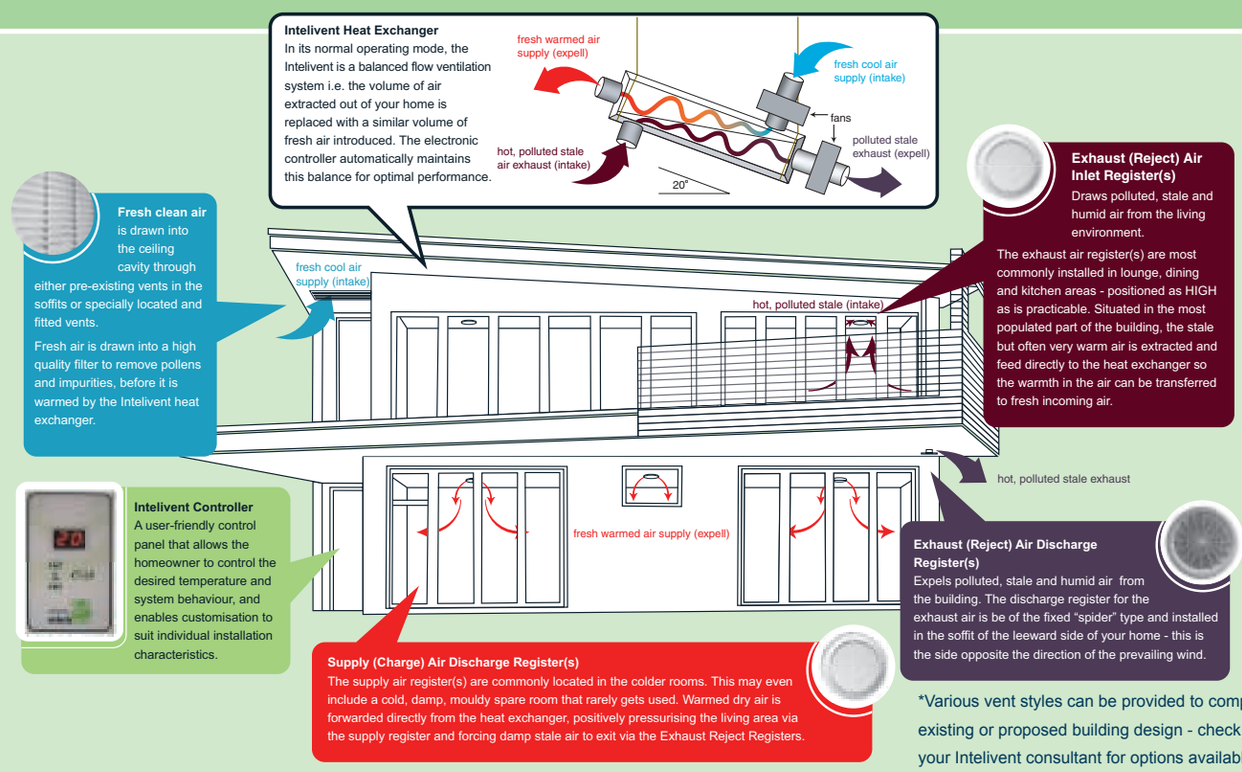
Heat energy is transferred to the fresh air Intelivent draws in. Heat transfer dramatically boosts the overall efficiency of interior building temperature management and actually increases energy savings. Unlike other ventilation systems, Intelivent uses a micro-processor (mini computer) which continuously monitors and evaluates temperatures around the house. This Electronic Controller automatically determines the optimal speed for twin fans to achieve the healthiest and most comfortable airflow strategy.

A User Interface gives you control over the system. It has a user-friendly keypad and an electronic display which means you can easily set the desired temperature for the whole house - and it also provides clear and concise feedback on the status of the Intelivent system.

Intelivent then does the rest - capturing and recycling heat energy that would otherwise be lost, distributing it evenly throughout the dwelling.

...and it does it all automatically, efficiently and very quietly.

Intelivent - in a residential situation


Intelivent Heat Exchanger
In its normal operating mode, the Intelivent is a balanced flow ventilation system i.e. the volume of air extracted out of your home is replaced with a similar volume of fresh air introduced. The electronic controller automatically maintains this balance for optimal performance.
fresh warmed air supply (expell)
fresh cool air supply (intake)
fans
hot, polluted stale air exhaust (intake)
polluted stale exhaust (expell)
20°
Fresh clean air is drawn into the ceiling cavity through either pre-existing vents in the soffits or specially located and fitted vents.
Fresh air is drawn into a high quality filter to remove pollens and impurities, before it is warmed by the Intelivent heat exchanger.
fresh cool air supply (intake)
hot, polluted stale (intake)
Exhaust (Reject) Air Inlet Register(s)
Draws polluted, stale and humid air from the living environment.
The exhaust air register(s) are most commonly installed in lounge, dining and kitchen areas - positioned as HIGH as is practicable. Situated in the most populated part of the building, the stale but often very warm air is extracted and feed directly to the heat exchanger so the warmth in the air can be transferred to fresh incoming air.
hot, polluted stale exhaust
Intelivent Controller
A user-friendly control panel that allows the homeowner to control the desired temperature and system behaviour, and enables customisation to suit individual installation characteristics.
fresh warmed air supply (expell)
Exhaust (Reject) Air Discharge Register(s)
Expels polluted, stale and humid air from the building. The discharge register for the exhaust air is be of the fixed "spider" type and installed in the soffit of the leeward side of your home - this is the side opposite the direction of the prevailing wind.
Supply (Charge) Air Discharge Register(s)
The supply air register(s) are commonly located in the colder rooms. This may even include a cold, damp, mouldy spare room that rarely gets used. Warmed dry air is forwarded directly from the heat exchanger, positively pressurising the living area via the supply register and forcing damp stale air to exit via the Exhaust Reject Registers.

*Various vent styles can be provided to compliment existing or proposed building design - check with your Intelivent consultant for options available.

installation

Careful consideration needs to be given to where and how the Intelivent system is installed to ensure optimum results. Our licensed installers* are specially trained to get the best results in what ever the building type and are available to install Intelivent Systems nationwide. Installation includes all power cables, a junction box plus circuit breaker if required and presuppose that all equipment is on hand and able to be installed in a single visit. (*Extended Warranty applies to licensed installations.)

Call 0800 Intelivent today to arrange an onsite no obligation inspection and quote.

entuition
RESOURCE INTELLIGENCE

preserving New Zealand's valuable resources with energy intelligent solutions...

Intelivent is produced and distributed by Entuition - a New Zealand company dedicated to smart, energy conscious products.

With strong ties to the energy industry, our team of talented professionals has a passion for delivering smarter solutions for an energy conscious consumer. We actively seek new ways to improve your immediate and our collective environments.

We're always on the lookout for innovative ideas - so if you share the same outlook, feel free to contact us.

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specifications

Fans	2 x Inline ball-bearing centrifugal 780m3/hr 230VAC 50 Hz 85W, achieving up to 1 air-change per hour in a 200m2 house
Heat Exchanger	(300mm (W) x 300mm (H) x 1250mm (L)) High-efficiency, low pressure drop, compact, synthetic construction, counter-flow, New Zealand designed and manufactured
Electronic Controller	(214mm (L) x 162mm (W) x 92mm (H) PVC) Solid-state, microprocessor-based, New Zealand designed and manufactured Fully automatic all-season mode control - 3 heating modes and 3 cooling modes Fully automatic variable fan speed control - optically isolated Pulse Width Modulated output - Multiple temperature sensing locations - 4 linear voltage output semiconductor sensors in the MKI controller
User Control Panel	(75mm (W) x 119mm (H) x 12mm (D)) Temperature indication in degrees C One-touch temperature set-point adjustment User-switchable night-mode for quieter fan operation Installer-configurable installation tuning parameters User-selectable automatic restart after power failure
Diffusers	Injection moulded plastic with adjustable flow
Ducting	High airflow, low pressure drop 200mm nude and R0.6 insulated flexible ducting
Filters	Replaceable high-grade EU4 filters (European Standard EN 779)
System Power Consumption	120W approx. average

warranty

Key components in the Intelivent system are manufactured in New Zealand to a high quality standards. The fan motors for example require no lubrication and are factory balanced to prevent vibration and promote silent operation. To guarantee a correct and effective Intelivent installation, we recommend using a licensed Intelivent installer.

1. If the licensed installer is contracted to fit the system, the warranty period will extend to 48 months (4 years). However the installer shall maintain liability for any malfunction of the system arising from faulty installation.
2. If you contract your own installer, the warranty will be 36 months (3 years) from the date of purchase, including parts replaced during this time period. If there is no proof of purchase available, the date associated with the serial number will be used for the beginning of the warranty period.
3. The limited warranty covers normal use. It does not apply to any defects, malfunctions / failures as a result of improper installation, abuse, mishandling, misapplication, fortuitous occurrence or any other circumstances outside Entuition's control.
4. Inappropriate installation or maintenance may result in the cancellation of the warranty.
5. Any unauthorised work will result in the cancellation of the warranty.
6. Entuition is not responsible for any incidental or consequential damages incurred in the use of the ventilation system.
7. Entuition is not responsible for providing an authorised service centre near the purchaser or in the general area.
8. Entuition reserves the right to supply refurbished parts as replacements.
9. Transportation, removal and installation fees are the responsibility of the purchaser.
10. The purchaser is responsible for adhering to all codes in effect in their area.

* This warranty is the exclusive and only warranty in effect relative to the ventilation system and all other warranties either expressed or implied are invalid.

contact details:

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